



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of

WILLIAM P. STEARNS ET AL.

Serial No. 09/678.318 (TI-25833.1)

Filed October 3, 2000

For: OPTIMIZED CIRCUIT DESIGN LAYOUT FOR HIGH  
PERFORMANCE BALL GRID ARRAY PACKAGES

Art Unit 2815

Examiner Matthew C. Landau

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11-1-07

Jay M. Cantor, Reg. No. 19,906

Sir:

**REPLY TO SECOND SUPPLEMENTAL EXAMINER'S ANSWER**

The replies to the section of the above-noted paper which are being duplicated by the examiner are adhered to and incorporated herein by reference. This includes the Response to Remand Under 37 C.F.R. § 41.50(a)(1) and Order Under 37 C.F.R. § 41.50(d)..

With regard to the examiner's argument in the paragraph bridging pages 5 and 6 of the above-noted paper, it is not the duty of applicant to initially show how a claim does not read on a reference but rather that of the examiner. This is known as making a primary facie case which it is the duty of the examiner to make initially. This has not been done in the

prior papers as inferentially admitted by the examiner in reference to his “new arguments for further clarification”.

With reference to the “Clarified Explanation of figure 3j of Ohsawa”, the examiner states that “Box 1 and the corresponding arrow shows an example of the ball pitch of Ohwasa. This is shown as the distance between equal points on adjacent ball pads and corresponds to the same definition of ball pitch as in appellant’s specification (original specification page 2 lines 12-15)”. The definition of “ball pitch” is set forth in the paragraph referred to by the examiner and is the distance between the bond pads as shown by Box 1..

The examiner then states that “Box 2 and the corresponding arrow shows a length L1 along which the traces are parallel and have the same length” Clearly, nowhere does Ohsawa make such a statement or even imply such a fact. Nothing in Fig. 3j of Ohsawa shows that which the examiner alleges. In fact, as can be seen, the bond pads extend beyond the extremities of the chip 4, making it unlikely in Ohsawa for the leads from the bond pads on the leadframe to the bond pads on the chip to be parallel unless Ohsawa specifically stated such an arrangement, which it does not. In fact, note specifically that the two lines at the rightmost portion of the figure as shown on page 9 of the subject paper come somewhat together as they approach the chip (which they must in view of the geometry of the bond pad locations relative to the chip perimeter).

The examiner states that “Box 4 and the corresponding arrow shows the parallel portion of the pair of traces”. It cannot be clearly determined as to which traces the arrow is directed. Furthermore, nothing in the specification states that the traces are parallel. Still further, claim 1 requires that the traces be in pairs. The “pairs” are defined on page 3, lines 2-3, of the specification as “pairs of wires [that] carry the same or similar signals but are out

of phase with each other”. Claims 3 and 4 and claims depending therefrom specifically require that a differential signal pair be applied to the pair of traces.

The examiner states that Box 5 and the corresponding arrow shows a second pair of traces. However, the arrow does not appear to be directed to any pair of traces.

As stated in the specification at page 4, lines 9ff, the quality of the differential pairs is dependent upon each of (1) the degree of parallelism, (2) equality of length and (3) substantial identity of geometry and spacing between the cross-sections of the two traces forming the differential pair. These features are set forth in all of the claims and maximize performance of the chip. Ohsawa nowhere teaches or suggests the problem or its solution, let alone the specific solution of the present invention.

The examiner dismisses the argument of appellants to the effect that the drawings of Ohsawa cannot be used to show dimensions, parallelism and the like and offers M.P.E.P. 2125 to support his position. The examiner has conveniently disregarded the immediately following paragraph of the M.P.E.P., namely section 2126 wherein it is clearly stated the “[w]hen the reference does not disclose that the drawings are to scale and is silent as to dimensions, arguments based on measurement of the drawing features are of little value”, citing *Hockerson-Halberstadt, Inc. v. Avia Group Intl.*, 222 F3d 951, 956, 55 USPQ 1487, 1491 (Fed. Cir. 2000). It follows that the case law completely rejects the arguments presented by the examiner.

It is further noted that the examiner has, for the first time, attempted to set forth a basis for rejection of the claims which is alleged to be understandable to the appellants as well as the Board in view of the REMAND. While the basis for rejection is flawed as demonstrated above, it is also a new ground of rejection never previously set forth.

Accordingly, the paper entitled "SECOND SUPPLEMENTAL EXAMINER'S ANSWER" cannot be properly considered as a part of the record in this appeal.

For the reasons set forth above as well as in the prior filed papers, reversal of the final rejection and allowance of the claims is requested that justice be done in the premises.

Respectfully submitted,



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